



SEQUENCE LISTING

<110> The Government of the United States of America, as represented by The Secretary of the Department of Health and Human Services

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<120> VARIANTS OF HUMANIZED ANTI-CARCINOMA MONOCLONAL ANTIBODY CC49

<130> 4239-61725

<140> US 09/830,748

<141> 2001-04-30

<150> PCT/ US99/25552

<151> 1999-10-29

<150> US 60/106,757

<151> 1998-11-02

<150> US 60/106,534

<151> 1998-10-31

<160> 44

<170> PatentIn version 3.1

C6

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1 5 10 15

Ala

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Trp Ala Ser Ala Arg Glu Ser
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<213> Mus musculus

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Gln Gln Tyr Tyr Ser Tyr Pro Leu Thr
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<210> 4

<211> 5

<212> PRT

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<212> PRT

<213> Homo sapiens

<400> 7

Lys Ser Ser Gln Ser Val Leu Tyr Ser Ser Asn Ser Lys Asn Tyr Leu
1 5 10 15

Ala

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APR 18 2003

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<210> 8
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<212> PRT
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<400> 8

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<400> 10

Ser Tyr Ala Met His
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Cy
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<212> PRT
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Gly

<210> 12
<211> 12
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<213> Homo sapiens

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1 5 10

<210> 13
<211> 113
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<220>
<223> Mouse and Human Chimeric Antibody Light Chain Variable Region
<400> 13

Asp Ile Val Met Ser Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
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Glu Arg Val Thr Leu Asn Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
20 25 30

Gly Asn Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser Ala Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Val Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu
100 105 110

Lys

CW
<210> 14
<211> 115
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<213> Artificial Sequence

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<223> Mouse and Human Chimeric Antibody Heavy Chain Variable Region
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Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Val Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp His
20 25 30

Ala Ile His Trp Val Lys Gln Asn Pro Gly Gln Arg Leu Glu Trp Ile
35 40 45

Gly Tyr Phe Ser Pro Gly Asn Asp Asp Phe Lys Tyr Asn Glu Arg Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Thr Ser Ala Ser Thr Ala Tyr
65 70 75 80

Val Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Phe Cys
85 90 95

Thr Arg Ser Leu Asn Met Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

C
<210> 15
<211> 124
<212> DNA
<213> Artificial Sequence

<220>
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cgtg 124

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<212> DNA
<213> Artificial Sequence

<220>
<223> VH Oligonucleotide Primer

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ctatacgagag tgaagggtgta gccgcgttgcc ttgcaggaaa tcttcacgcc cagggacacg 120
gcc 123

<210> 17
<211> 126
<212> DNA
<213> Artificial Sequence

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<223> VH Oligonucleotide Primer

<400> 17
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gcctga 126

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<211> 125
<212> DNA
<213> Artificial Sequence

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<223> VH Oligonucleotide Primer

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tattcagggta tcttgtgcag aagtacactg cagtatcctc ggatctcagg ctggagagct 120
ccacg 125

<210> 19
<211> 122
<212> DNA
<213> Artificial Sequence

<220>
<223> VL Oligonucleotide Primer

<400> 19
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Ch

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<223> VL Oligonucleotide Primer

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agcaggact ggctggactt gcaattcaga gtcaccctct cgcggcagg 120
g 121

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<211> 121
<212> DNA
<213> Artificial Sequence

<220>
<223> VL Oligonucleotide Primer

<400> 21
gcagaaacca gggcagagcc ctaaactgct gatttactgg gcatccgcta gggaatccgg 60
cgtgcctgat cgcttcagcg gcagcggatc tgggacagac ttcaactctga caatcagcag 120
c 121

<210> 22
<211> 126
<212> DNA
<213> Artificial Sequence

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<223> VL Oligonucleotide Primer

<400> 22
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atactgctga caataataga ctgccacgtc ttctgcctgc acgctgctga ttgtcagagt 120
gaagtc 126

<210> 23
<211> 19
<212> DNA
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<220>
<223> Oligonucleotide Primer

<400> 23
ctaagcttcc accatggag 19
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<210> 24
<211> 19
<212> DNA
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<400> 24
atgggcccgt agtttggcg 19

<210> 25
<211> 20
<212> DNA
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<220>
<223> Oligonucleotide primer

<400> 25
gcaagcttcc accatggata 20

<210> 26
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide primer

<400> 26
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Ch

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<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Mutagenic primer

<400> 27
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<210> 28
<211> 45
<212> DNA
<213> Artificial Sequence

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<223> Mutagenic primer

<400> 28
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<210> 29
<211> 42
<212> DNA
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<223> Mutagenic primer

<400> 29
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<210> 30
<211> 39
<212> DNA
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<223> Mutagenic primer

<400> 30
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<210> 31
<211> 37
<212> DNA
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<223> Mutagenic primer

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<210> 32
<211> 56
<212> DNA
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<210> 33
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<213> Homo sapiens

<400> 33

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1 5 10 15

Glu Arg Ala Thr Ile Asn Cys
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<210> 34
<211> 15
<212> PRT
<213> Homo sapiens

<400> 34

Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile Tyr
1 5 10 15

<210> 35
<211> 32
<212> PRT
<213> Homo sapiens

<400> 35

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

Leu Thr Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys
20 25 30

Ch
<210> 36
<211> 10
<212> PRT
<213> Homo sapiens

<400> 36

Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
1 5 10

<210> 37
<211> 30
<212> PRT
<213> Homo sapiens

<400> 37

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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr
20 25 30

<210> 38
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<212> PRT
<213> Homo sapiens

<400> 38

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<210> 39
<211> 32
<212> PRT
<213> Homo sapiens

<400> 39

Arg Val Thr Ile Thr Arg Asp Thr Ser Ala Ser Thr Ala Tyr Met Glu
1 5 10 15

Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

Ch
<210> 40
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<212> PRT
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<400> 40

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
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<210> 41
<211> 424
<212> DNA
<213> Artificial Sequence

<220>
<223> Mouse and Human Nucleotide Sequences Encoding a Chimeric Antibody
Light Chain Variable Region Together with Flanking Oligomers

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cggcacatgc ggcgacatcg tcatgagcca gtctccagac tccctggccg tgtcccaggg 120
cgagagggtg actctgaatt gcaagtccag ccagtccctg ctctatagcg gaaatcagaa 180

gaactatctc gcctggtata agcagaaacc agggcagagc cctaaactgc tgatttactg 240
ggcatccgct agggaatccg gcgtgcctga tcgcttcagc ggcagcggat ctggacaga 300
cttcactctg acaatcagca gcgtgcaggc agaagacgtg gcagtctatt attgtcagca 360
gtattatacg tatcccccta cattcggcgc tggcaccaag ctggaactga aacgggcccgc 420
ggct 424

<210> 42
<211> 424
<212> DNA
<213> Artificial Sequence

<220>
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gaagtctgtc ccagatccgc tgccgctgaa gcgatcaggc acgccggatt ccctagcgaa 180
tgcccagtaa atcagcagtt tagggctctg ccctgggttc tgctgataacc aggcgagata 240
gttcttctga tttccgctat agagcagggc ctggctggac ttgcaattca gagtcaccct 300
ctcgcccagg gacacggcca gggagtctgg agactggctc atcacgatgt cgccgcgtgt 360
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ttgc 424

<210> 43
<211> 434
<212> DNA
<213> Artificial Sequence

<220>
<223> Mouse and Human Nucleotide Sequences Encoding a Chimeric Antibody Heavy Chain Variable Region Together with Flanking Oligomers

<400> 43
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agtgcactcc caggtccagc tggtgctagc cggcgctgag tccctggccg tgtcccagg 120
cgtgaagatt tcctgcaagg caagcggcta caccttact ctctatagcg gaaatcagaa 180
gaaacagaat cctggacagc gcctggagtg gattggatat ttctctcccg gaaacgtga 240

tttaagtac aatgagaggt tcaaggcaa ggccacactg actgcagaca catctgccag 300
cactgcctac gtggagctct ccagcctgag atccgaggat actgcagtgt acttctgcac 360
aagatccctg aatatggct actggggaca gggAACCTG gtcaccgtct ccagcgccaa 420
aactacgggc ccat 434

<210> 44
<211> 434
<212> DNA
<213> Artificial Sequence

<220>
<223> Nucleotide Sequences Complementary to Mouse and Human Nucleotide Sequences Encoding a Chimeric Antibody Heavy Chain Variable Region Together with Flanking Oligomers

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tattcaggga tcttgtcag aagtacactg cagtatcctc ggatctcagg ctggagagct 120
ccacgtaggc agtgctggca gatgtgtctg cagtcagtgt ggccttgccc ttgaacctct 180
cattgtactt aaaatcatcg tttccggag agaaaatatcc aatccactcc aggcgctgtc 240
caggattctg tttcttctga tttccgctat agagagtcaa ggtgtagccg cttgccttgc 300
aggaaatctt cacgcccagg gacacggcca gggactcagc gccggactgc accagctgga 360
cctggagtg cactctcacc cacagcagca ggaggaagag gaagacccag gaccactcca 420
tggtggaaagc ttag 434